Tools of the Trade – Using Weather Tools
Grade 1-5

OVERVIEW: Weather is a condition of the atmosphere and meteorologists are scientists who use instruments to gather data in order to study and then forecast the weather.

CONNECTIONS TO THE CURRICULUM: Science

STANDARDS:
SC-P-EU-S-3
Students will observe weather conditions and record weather data over time using appropriate tools (e.g., thermometer, wind vane, rain gauge, etc.)

SC-P-EU-S-4
Students will use weather data to describe weather conditions and make simple predictions based on patterns observed (e.g., daily, weekly, seasonal patterns)

GEOGRAPHIC SKILLS:
> Acquiring Geographic Information
> Organizing Geographic Information
> Answering Geographic Questions
> Analyzing Geographic Information

TIME: 30 minutes for days 1-3, 50 minutes for day 4-5

MATERIALS REQUIRED: Mesonet data, weather watcher sheet, copy of weather tools worksheet, two 6"x9" pieces of construction paper, glue, scissors, crayons or markers

OBJECTIVES:
1. Observe and record weather data over a period of time.
2. Recognize instruments used in predicting the weather

SUGGESTED PROCEDURE:
Opening- Explain that a meteorologist is a scientist who collects information about the atmosphere using different scientific instruments. They also make observations about weather conditions to make forecasts.

Strategies/Activities- Students will practice observing and collecting weather data by looking at an outdoor thermometer each day and then comparing the temperature to the temperature and other weather data from the Mesonet website. Students will also gather from the Mesonet site daily weather information on humidity, wind speed, precipitation and wind direction and record it on a weather chart for five days. Discuss the results of each day and how these feel on the body
At the end of the five days students will graph the results of temperature. Students will answer questions about information gathered on the graph. Discuss any possible happening that may be occurring with the weather.

On Day 4, students will make a booklet of different weather instruments. After reading about the instruments students will cut out the picture and match it to its description. Students will then take the two 6"x9" pieces of construction paper and put them on top of each other and make a booklet. Students will glue the pictures and matching descriptions into the booklet.

On Day 5, students graph the temperature information and discuss as a class the results. Closing- Review the weather instruments discussed and their uses. Show a picture of an instrument and have students to name it and tell how it is used.

SUGGESTED STUDENT ASSESSMENT:
Student assessment will be answering an open response on weather instruments at the end of the five day weather collection activity.

Your Science Club is setting up a weather station for your school to observe and predict the weather.

A. Identify three weather instruments that might be found in your weather station.
B. Describe how you would use each of the instruments you chose.
C. Give an example of how information from each instrument would be useful to people living in your community.

EXTENDING THE LESSON: Bring in a guest speaker such as a meteorologist or weather forecaster that could explain about weather instruments and how they are used on the job.

ADAPTIONS:
  Challenged Learner: Students will be provided modifications for a scribe or reader and assistance in completing all activities. Modifications will be based on individual student IEP.

  Challenging Learner: Students will be encouraged to record data over a two week period and then report back to the class any new findings from their data.

RELATED LINKS:
Mesonet Data: http://kyclim.wku.edu/kymesonet/data.htm
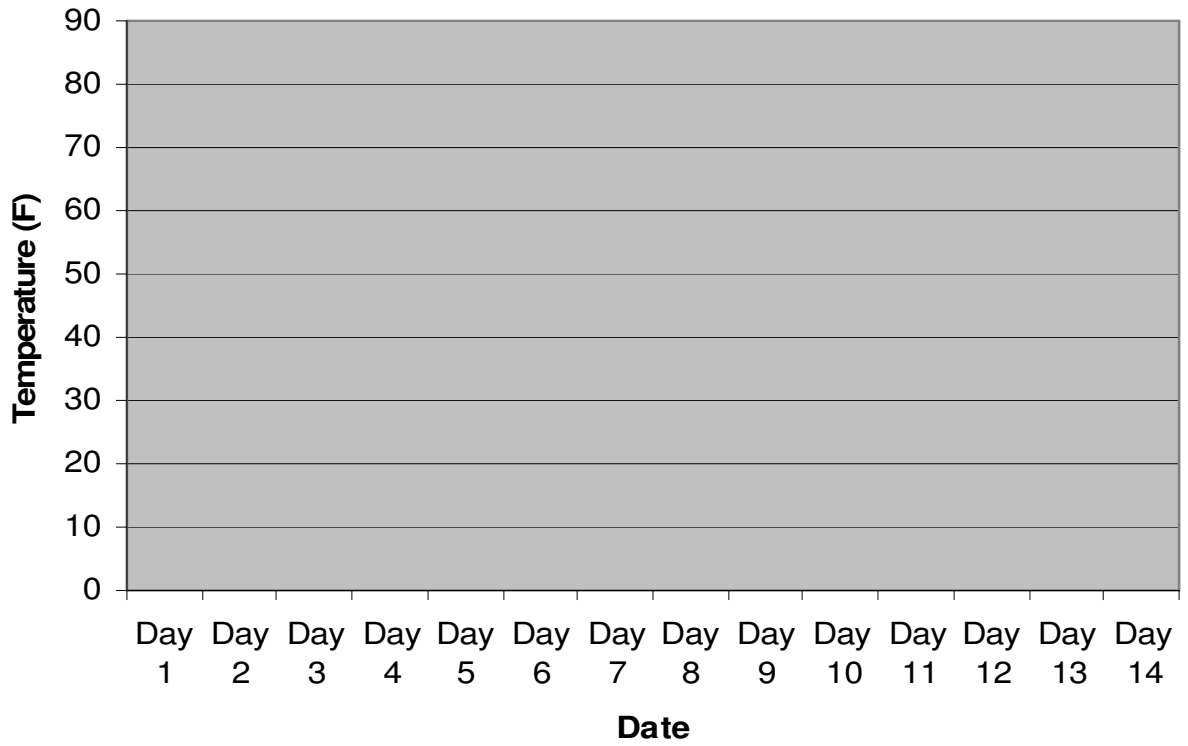
Elizabeth Riggs – Grade 3
Date: June 19, 2007

Weather Watchers

Record the Weather Data on the Chart for 5 Days. After 5 days of data plot the temperature on the graph
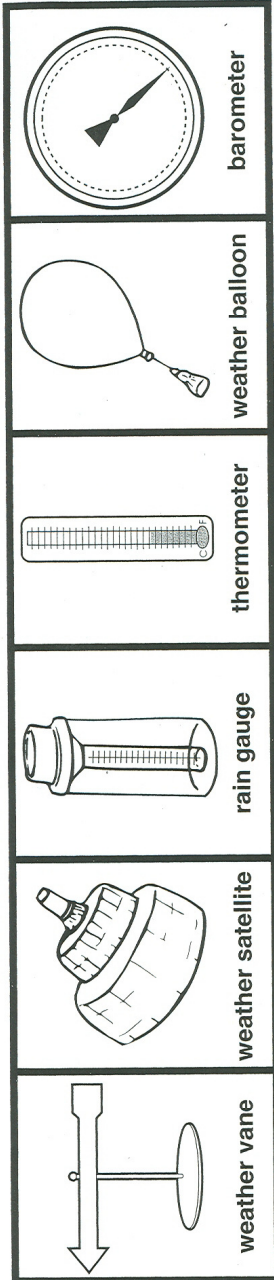
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Temperature							
Humidity							
Wind Direction							
Wind speed							
Precipitation							

Weather Watchers

An empty line chart with the vertical axis labeled **Temperature (F)** marked from 0 to 90 in increments of 10, and the horizontal axis labeled **Date** with categories Day 1 through Day 14.

barometer	weather balloon	thermometer	rain gauge	weather satellite	weather vane

1. A _____ measures the amount of rainfall. It has a ruler for measuring. Some of these weather instruments are tall, plastic cylinders with covers.

2. A _____ tells from what direction the wind is coming. It has an arrow on a stand. The wind makes the arrow turn.

3. The air pressure is measured with a _____. One type has a dial and a needle. When the air pressure drops, clouds may be coming.

4. A _____ flies high above the ground. It carries instruments that tell about the weather. A radio transmitter sends this information to people on the ground.

5. Air temperature is measured with a _____. This weather instrument is a tube with a special liquid inside. The liquid rises when the weather gets warmer and falls when it gets colder.

6. A _____ orbits the earth. It takes pictures from space. The pictures help scientists study the weather and track storms.

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